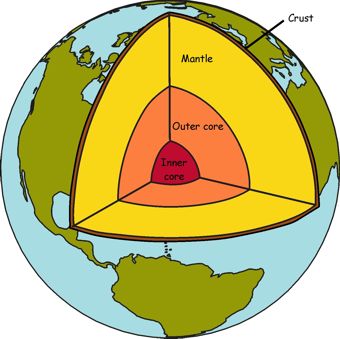
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per: \_\_\_\_\_\_

Planet Earth: Earth’s Interior and Plate Tectonics---CHP \_\_\_\_\_, Section \_\_\_\_\_\_ pp. \_\_\_\_\_\_-\_\_\_\_\_\_

**EARTH’S INTERIOR**

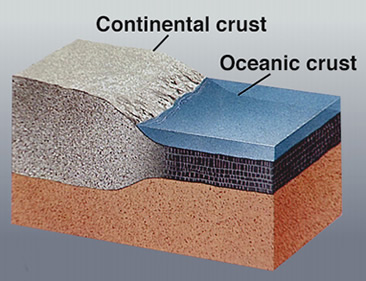
The Earth is made of multiple layers:

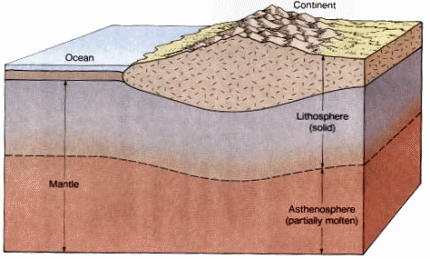
1. **CRUST**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\* TWO TYPES OF CRUST

|  |  |
| --- | --- |
|  |  |
|  |  |



2. **MANTLE**

* located below the crust (more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

**Lithosphere**

**(solid)**

* \_\_\_\_\_\_\_\_\_ of earth’s total volume (very thick = 1,800 miles thick)

Mantle

-crust & top (outer) part of the mantle is rigid and cool🡪\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Asthenosphere (molten/soft)**

-bottom (inner) part of the mantle is hot, soft and easily deformed (like

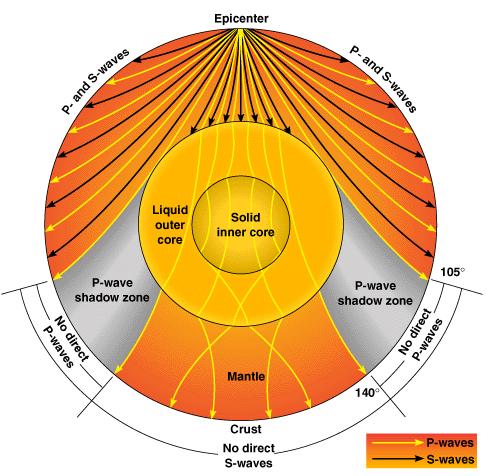
chewing gum) 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. **CORE**

* mostly made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\*, very hot

*2 layers:*

1. **outer core** (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ metal)- even though it’s above the boiling point they do not boil due to high pressure (no gases)
2. **inner core** (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ metal)- very high \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ so atoms are forced together despite the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**EVIDENCE OF EARTH’S INTERNAL STRUCTURE…**

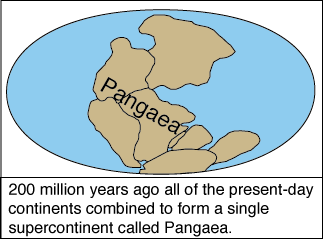
What is the difference between P and S seismic waves? (Types of waves, how they travel, and through what?)

**P-WAVES:**

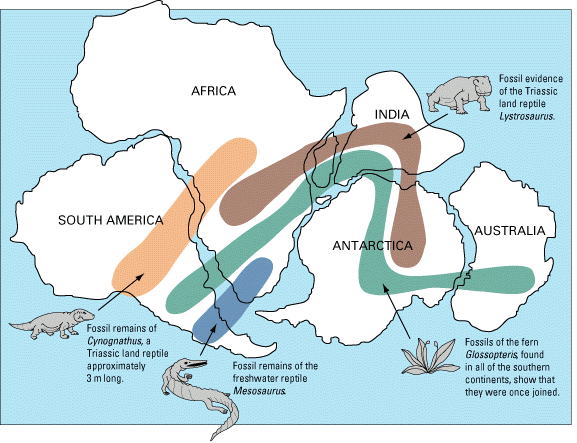
**S-WAVES:**

**PLATE TECTONICS**

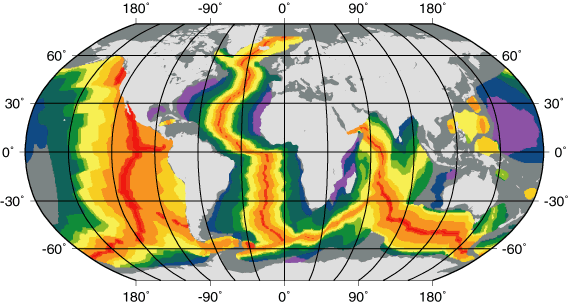
\*In the early 1900s, the German scientist \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ observed:

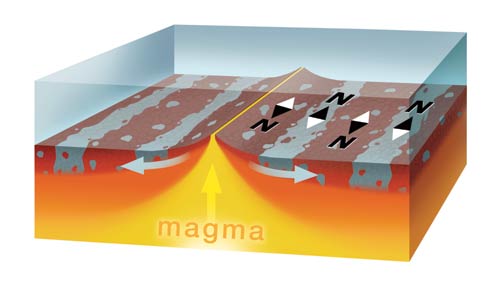


• \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hypothesized that all of the continents fit together in the past to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**EVIDENCE OF PLATE TECTONICS AND CONTINENTAL DRIFT**

1.

2.



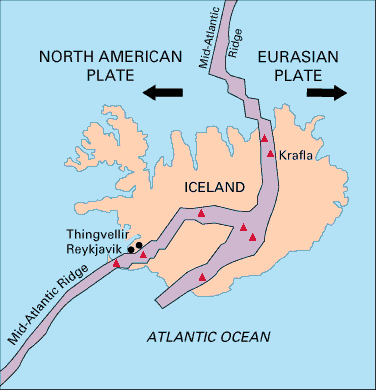
3.

**Convection Currents Sketch:**

\*Convection currents within the Earth= (hot rock …cooler rock ) moves the plates.

**Plate Boundaries**

**1. DIVERGENT boundary**

* Occurs where two tectonic plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and create a gap
*  Forms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(from rising \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_). Hot rock from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rises up and cools to form **new** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **rock**.

Examples of **DIVERGENT** boundaries:

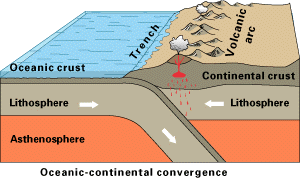
a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the country of: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How is the Red Sea forming? Describe the pictures.

**2. CONVERGENT boundary**

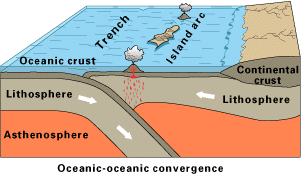
• Occurs where two tectonic plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*3 different situations for this boundary type*:

**a. Oceanic-Continental-** Oceanic plate is more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and sinks below the continental plate. This is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

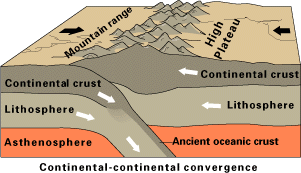
Examples and location:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**b. Oceanic-Oceanic-** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plate sinks below the other.

Examples and location:

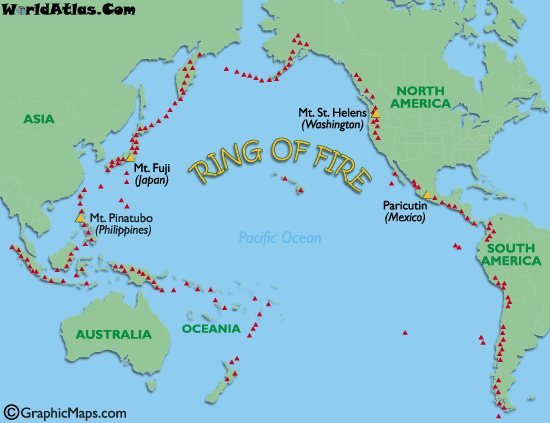
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**c. Continental**-**Continental**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and more \_\_\_\_\_\_\_\_\_\_\_\_\_\_ plate sinks below the other.

Real-life example of this boundary type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The 10 highest mountains in the world are found here.**

\* Convergent Boundaries create \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, especially around the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ocean in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

WHAT IS THE RING OF FIRE?

**3. TRANSFORM boundary**

• Occurs where two plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ each other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- along a fault. A fault is a break in a body of rock. One block slides relative to the other (lots of friction)

Example and location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_